



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0881; Project Identifier 2018-CE-024-AD]

RIN 2120-AA64

Airworthiness Directives; Piper Aircraft, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 79-01-03, which applies to certain Piper Aircraft, Inc. (Piper) Model PA-36-285 airplanes, and AD 83-20-03, which applies to Piper Models PA-36-285, PA-36-300, and PA-36-375 airplanes. AD 79-01-03 requires repetitive inspections of the spar carry through assembly until it is replaced with a different part numbered spar carry through assembly. AD 83-20-03 establishes life limits for the wing spar structural components. Since the FAA issued AD 79-01-03 and AD 83-20-03, the FAA identified inspection and life limit requirements that were inadvertently omitted from those ADs. This proposed AD would retain the requirements in AD 79-01-03 and AD 83-20-03 and require the spar carry through assembly inspection from AD 79-01-03 for additional airplanes and add life limits for certain wing structural components previously omitted from AD 83-20-03 for certain serial numbered airplanes. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 567-4361; website: <https://www.piper.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0881; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Dan McCully, Aviation Safety Engineer, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5548; fax: (404) 474-5606; email: william.mccully@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0881; Project Identifier 2018-CE-024-AD.” The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Dan McCully, Aviation Safety Engineer, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued AD 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979), Docket No. 78-EA-69 (AD 79-01-03), for certain Piper Model PA-36-285 airplanes. AD 79-01-03 requires repetitive inspections of spar carry through assembly part number (P/N) 97370-00, with repair as necessary, until the spar carry through assembly is replaced with P/N 76824-02. AD 79-01-03 was prompted by reports of cumulative damage to the wing spar carry through assembly, which resulted from fatigue testing and other field evidence of movement between the leg of the spar cap and the spar web. The FAA issued AD 79-01-03 to prevent hazards in flight associated with damage of the wing spar carry through assembly.

The FAA also issued AD 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983), Docket No. 83-CE-23-AD (AD 83-20-03), for Piper Models PA-36-285, PA-36-300, and PA-36-375 airplanes. AD 83-20-03 establishes life limits for certain wing structural components. AD 83-20-03 was prompted by manufacturer laboratory fatigue tests of the wing structure that identified the need to establish a service life limit for the wing structural components. The FAA issued AD 83-20-03 to prevent failure of the wing structural components because of fatigue damage.

Actions Since AD 79-01-03 and AD 83-20-03 Were Issued

Since the FAA issued AD 79-01-03 and AD 83-20-03, the FAA identified inconsistencies between the two ADs and the airplanes' type certificate. The FAA determined that the life limits for the spar carry through assembly, P/N 97370-00 or 76824-02, were inadvertently omitted from AD 83-20-03 for certain airplanes. The FAA is issuing this NPRM to add the life limit for the spar carry through assembly for Models PA-36-285 and PA-36-300 airplanes, serial numbers 36-7660123 through 36-8160023, and Model PA-36-375 airplanes, serial numbers 36-7802001 through 36-8302025. The FAA also determined the repetitive inspections of the spar carry through assembly required by AD 79-01-03 should apply to both Model PA-36-285 and Model PA-36-300 airplanes until the life limit replacement of the spar carry through assembly with P/N 76824-02. After the initial life limit replacement of the wing spar carry through assembly required by AD 83-20-03 (P/N 97370-00 with P/N 76824-02), the inspections required by AD 79-01-03 are no longer be required. In this NPRM, the FAA proposes to supersede both of those ADs.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Piper Aircraft, Inc., Service Bulletin No. 552A, dated August 3, 2018 (Piper SB No. 552A); Piper Aircraft PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-394); and Piper Aircraft PA-36, Pawnee Brave Kit 764-393, Left Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-393). Piper SB No. 552A applies to Models PA-36-285 and PA-36-300 airplanes and contains procedures for repetitively inspecting wing spar carry through assembly P/N 97370-00. Piper Kit 764-394 identifies the applicable parts and specifies procedures for replacing the right wing main spar caps, which includes the attachment bolts and wing carry through spar fittings and assembly. Piper Kit 764-393 identifies the applicable parts and specifies procedures for replacing the left wing main

spar caps, which includes the attachment bolts and wing carry through spar fittings and assembly. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Piper Aircraft Corporation Service Bulletin No. 552, dated February 3, 1978 (Piper SB No. 552). Piper SB No. 552 contains the same procedures as Piper SB No. 552A, but Piper SB No. 552 only applies to Model PA-36-285 airplanes.

Proposed AD Requirements in this NPRM

This proposed AD would retain all of the requirements of AD 79-01-03 and AD 83-20-03 but would apply some of the requirements to additional serial-numbered airplanes.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 123 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of P/N 97370-00 wing spar carry through assembly	8 work-hours X \$85 per hour = \$680	Not applicable	\$680	\$83,640
Replacement of the wing attachment upper bolt and lower bolt	10 work-hours X \$85 per hour = \$850	\$1,310 (both bolts)	\$2,160	\$265,680
* Replacement of wing carry through spar assembly	30 work-hours X \$85 per hour = \$2,550	\$23,467	\$26,017	\$3,200,091
**Replacement of Piper Kit 764-393 (Left) and Piper Kit 764-394 (Right)	20 work-hours X \$85 per hour = \$1,700	\$26,867 (both kits)	\$28,567	\$3,513,741

* The wing carry through spar fitting, P/N 97713-03, is included in the wing carry through spar assembly, P/N 76824-02.

**The replacement for the wing spar fitting P/N 97712-00 and the replacement for spar assembly P/Ns 97701-00 and 97701-01 are included in Piper Kit 764-393 and Piper Kit 764-394.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979), Docket No. 78-EA-69; and Airworthiness Directive 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983), Docket No. 83-CE-23-AD; and

b. Adding the following new airworthiness directive:

Piper Aircraft, Inc.: Docket No. FAA-2020-0881; Project Identifier 2018-CE-024-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 79-01-03, Amendment 39-3383 (44 FR 36, January 2, 1979), Docket No. 78-EA-69 (AD 79-01-03); and AD 83-20-03, Amendment 39-4739 (48 FR 45535, October 6, 1983), Docket No. 83-CE-23-AD (83-20-03).

(c) Applicability

This AD applies to Piper Aircraft, Inc. Models PA-36-285, PA-36-300, and PA-36-375 airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5700, Wings.

(e) Unsafe Condition

This AD was prompted by a review of AD 83-20-03 and AD 79-01-03 and the determination that the requirements of those ADs did not address all of the affected airplanes. The FAA is issuing this AD to prevent fatigue damage to the wing structural components. The unsafe condition, if not addressed, could result in failure of the wing structure with consequent loss of control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection of the Wing Spar Carry Through Assembly

(1) For Models PA-36-285 and PA-36-300 airplanes, serial numbers 36-7360001 through 36-7560003, with a wing spar carry through assembly part number (P/N) 97370-00 installed, before the airplane accumulates a total of 2,000 hours time-in-service (TIS) or within 25 hours TIS after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 100 hours TIS, inspect the wing spar carry through assembly by following the Instructions, section 1, of Piper Aircraft, Inc., Service Bulletin No. 552A, dated August 3, 2018, (Piper SB No. 552A).

(2) If any damage is found during any inspection required by paragraph (g)(1) of this AD, before further flight, repair or replace the wing spar carry through assembly by following the Instructions, section 2, of Piper SB No. 552A.

(3) Replacing wing spar carry through assembly P/N 97370-00 with wing spar carry through assembly P/N 76824-02 terminates the repetitive inspections required by paragraph (g)(1) of this AD.

(h) Life Limit Replacement of Wing Structural Components

Remove from service the wing structural components specified in paragraphs (h)(1) through (8) of this AD before the part accumulates the life limit hours TIS set forth in table 1 to paragraph (h) of this AD. If, on the effective date of this AD, the component will reach its life limit within 100 hours TIS or has already reached its life limit, remove the part from service within 100 hours TIS after the effective date of this AD.

(1) Remove from service wing attachment upper bolt P/N 77245-00 and replace with an unused (zero hours TIS) wing attachment upper bolt P/N 77245-00.

(2) Remove from service any wing carry through spar fitting P/Ns 97713-00, 97713-02, or 97713-03 and replace with an unused (zero hours TIS) wing carry through spar fitting P/N 97713-03.

Note 1 to paragraph (h)(2): Wing carry through spar fitting P/N 97713-03 is included as part of spar carry through assembly P/N 76824-02.

(3) Remove from service wing spar fitting P/N 97712-00 and replace with an unused (zero hours TIS) wing spar fitting P/N 97712-00 by following steps D(1)(a) through D(1)(c) or section D(2), in Piper Aircraft, PA-36, Pawnee Brave Kit 764-393,

Left Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-393), or Piper Aircraft, PA-36, Pawnee Brave Kit 764-394, Right Wing Main Spar Caps Replacement, dated June 9, 2012 (Piper Kit 764-394), as applicable.

Note 2 to paragraph (h)(3): This note applies to paragraphs (h)(3) and (7) of this AD. Replacement parts for the left and right wing spar fittings P/N 97712-00 and the right, left, top, and bottom spar assemblies P/Ns 97701-00 and 97701-01 are included with Piper Kit 764-393 and Piper Kit 764-394.

(4) Remove from service spar carry through assembly P/N 97370-00 or 76824-02, as applicable, and replace with an unused (zero hours TIS) spar carry through assembly P/N 76824-02.

(5) Remove from service spar assembly P/Ns 97701-00 and 97701-01, Revision P or later revision, and replace with an unused (zero hours TIS) spar assembly by following the Instructions, sections B. and C., in Piper Kit 764-393 or Piper Kit 764-394, as applicable.

(6) Remove from service any spar carry through assembly P/N 76767-00 or P/N 76824-02 and replace with an unused (zero hours TIS) spar carry through assembly P/N 76824-02.

(7) Remove from service spar assemblies P/Ns 97701-00 and 97701-01, Revision N or earlier revision, and replace with an unused (zero hours TIS) left spar cap replacement kit P/N 764-393 and right spar cap replacement kit P/N 764-394 by following the Instructions, sections B. and C., in Piper Kit 764-393 or Piper Kit 764-394, as applicable.

(8) Remove from service wing attachment lower bolt P/N 77245-00 and replace with an unused (zero hours TIS) P/N 77245-00 bolt.

Table 1 to paragraph (h)—*Compliance Times for Life Limit Replacement of Wing Components*

Airplanes		Type of Replacement		Paragraph of this AD				
		(h)(1)		(h)(4)	(h)(5)	(h)(6)	(h)(7)	(h)(8)
		(h)(2)						
		(h)(3)						
Models PA-36-285 and PA-36-300		Life Limit Hours Time-in-Service on the Component						
Serial Numbers (S/Ns) 36-7360001 through 36-7560003	Initial	4,100	4,100	N/A	N/A	3,100	2,000	
	Repetitive	4,100	4,100	N/A	N/A	4,100	2,000	
S/Ns 36-7560004 through 36-7560055	Initial	4,100	N/A	N/A	4,000	3,100	2,000	
	Repetitive	4,100	N/A	N/A	4,100	4,100	2,000	
S/Ns 36-7560056 through 36-7660122	Initial	4,100	N/A	4,100	4,000	N/A	2,000	
	Repetitive	4,100	N/A	4,100	4,100	N/A	2,000	
S/Ns 36-7660123 through 36-8160023	Initial	4,100	4,100	4,100	N/A	N/A	2,000	
	Repetitive	4,100	4,100	4,100	N/A	N/A	2,000	
Model PA-36-375		Life Limit Hours Time-in-Service on the Component						
		(h)(1)		(h)(4)	(h)(5)	(h)(6)	(h)(7)	(h)(8)
		(h)(2)						
		(h)(3)						
S/Ns 36-7802001 through 36-8302025	Initial	4,100	4,100	4,100	N/A	N/A	2,000	
	Repetitive	4,100	4,100	4,100	N/A	N/A	2,000	

(i) Credit for Previous Actions

You may take credit for the actions required by paragraph (g) of this AD if you performed those actions before the effective date of this AD using Piper Aircraft Corporation Service Bulletin No. 552, dated February 3, 1978.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 79-01-03 and AD 83-20-03 are approved as AMOCs for the corresponding provisions of this AD.

(k) Related Information

(1) For more information about this AD, contact Dan McCully, Aviation Safety Engineer, FAA, Atlanta ACO Branch, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474-5548; fax: (404) 474-5606; email: william.mccully@faa.gov.

(2) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960; phone: (772) 567-4361; website: www.piper.com. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued on March 12, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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